

## TM010A7

### 10mm Gold dome neodymium

The new Micro 10 tweeter retains the performance of the well known Audax 10 mm tweeters but in a more compact size. A surface mount of flush mount are available for ease in installation.

- 24K gold ion deposited dome
- Formerless voice coil
- Balanced Drive: dome and suspension are of one piece.
- Ferrofluid cooled
- Compact size - 29.5 mm Ø



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	Ω
Resonance Frequency	Fs	3000	Hz
Power Handling (IEC)	P	25	W
Sensitivity (1W/1m)	E	87	dB
Voice coil Diameter	Ø	10	mm
Minimum Impedance	Zmin	6.4	Ω
DC Resistance	Re	5.5	Ω
Voice Coil Inductance	Lbm	.32	μH
Voice Coil Length	h	2	mm
Former	-	-	-
Number of Layers	n	2	-
Magnet Weight	m	-	kg
Flux Density	B	1	T
Force Factor	BL	1.1	NA <sup>-1</sup>
Height of Magnet Gap	He	2	mm
Linear Excursion peak	Xmax	0.25	mm
Suspension Compliance	Cms	-	mN <sup>-1</sup>
Mechanical Q Factor	Qms	-	-
Electrical Q Factor	Qes	-	-
Total Q Factor	Qts	-	-
Moving Mass	Mms	.11*10 <sup>-3</sup>	kg
Effective Piston Area	S	3.1*10 <sup>-4</sup>	m <sup>2</sup>
Equivalent Air Volume	Vas	-	m <sup>3</sup>

## TM025F1

### 25mm textile dome, neodymium

This 1" fabric dome tweeter has a 2 3/4" flange and a neodymium magnet. The magnet is inherently shielded for use in A/V systems.

- Catenary shaped damped fabric dome
- Ferrofluid cooled
- Compact size, very light
- Shielded neodymium magnet
- 30mm depth, 50mm hole size
- 92dB efficiency



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	Ω
Resonance Frequency	Fs	1250	Hz
Power Handling (IEC)	P	70	W
Sensitivity (1W/1m)	E	92	dB
Voice coil Diameter	Ø	25	mm
Minimum Impedance	Zmin	6	Ω
DC Resistance	Re	-	Ω
Voice Coil Inductance	Lbm	-	μH
Voice Coil Length	h	1.6	mm
Former	-	Aluminum	-
Number of Layers	n	2	-
Magnet Weight	m	-	kg
Flux Density	B	1.2	T
Force Factor	BL	-	NA <sup>-1</sup>
Height of Magnet Gap	He	1.5	mm
Linear Excursion peak	Xmax	.05	mm
Suspension Compliance	Cms	-	mN <sup>-1</sup>
Mechanical Q Factor	Qms	-	-
Electrical Q Factor	Qes	-	-
Total Q Factor	Qts	-	-
Moving Mass	Mms	-	kg
Effective Piston Area	S	-	m <sup>2</sup>
Equivalent Air Volume	Vas	-	m <sup>3</sup>

## TM025F9

### 25mm textile dome, neodymium

This 1" fabric dome tweeter has a 2 3/4" flange with truncated face plate and a neodymium magnet. The magnet is inherently shielded for use in A/V systems.

- Catenary shaped damped fabric dome
- Ferrofluid cooled
- Compact size, very light
- Shielded neodymium magnet
- 30mm depth, 50mm hole size
- 92dB efficiency



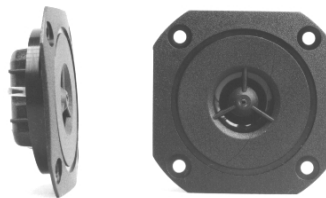
Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	Ω
Resonance Frequency	Fs	1250	Hz
Power Handling (IEC)	P	70	W
Sensitivity (1W/1m)	E	91	dB
Voice coil Diameter	Ø	25	mm
Minimum Impedance	Zmin	6	Ω
DC Resistance	Re	-	Ω
Voice Coil Inductance	Lbm	-	μH
Voice Coil Length	h	1.6	mm
Former	-	Aluminum	-
Number of Layers	n	2	-
Magnet Weight	m	-	kg
Flux Density	B	1.2	T
Force Factor	BL	-	NA <sup>-1</sup>
Height of Magnet Gap	He	1.5	mm
Linear Excursion peak	Xmax	.05	mm
Suspension Compliance	Cms	-	mN <sup>-1</sup>
Mechanical Q Factor	Qms	-	-
Electrical Q Factor	Qes	-	-
Total Q Factor	Qts	-	-
Moving Mass	Mms	-	kg
Effective Piston Area	S	-	m <sup>2</sup>
Equivalent Air Volume	Vas	-	m <sup>3</sup>

## TW010E1

### 10 mm Polymer dome tweeter

Very compact dome tweeter for use in automotive systems or in small 2-ways systems.

- Formerless voice coil
- Balanced drive; dome and suspension are of one piece
- Ferrofluid cooled voice coil
- wedge-mount housing available for surface mounting
- Tilttable hinged wedge mount available for better on axis response when dash mounted



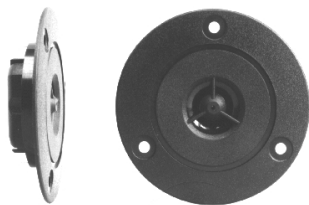
Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	Ω
Resonance Frequency	Fs	3000	Hz
Power Handling (IEC)	P	25	W
Sensitivity (1W/1m)	E	90	dB
Voice coil Diameter	Ø	10	mm
Minimum Impedance	Zmin	6.4	Ω
DC Resistance	Re	5.5	Ω
Voice Coil Inductance	Lbm	32	μH
Voice Coil Length	h	2	mm
Former	-	none	-
Number of Layers	n	2	-
Magnet Weight	m	17*10 <sup>-3</sup>	kg
Flux Density	B	1.1	T
Force Factor	BL	1.3	NA <sup>-1</sup>
Height of Magnet Gap	He	1.5	mm
Linear Excursion peak	Xmax	0.25	mm
Suspension Compliance	Cms	-	mN <sup>-1</sup>
Mechanical Q Factor	Qms	-	-
Electrical Q Factor	Qes	-	-
Total Q Factor	Qts	-	-
Moving Mass	Mms	0.11*10 <sup>-3</sup>	kg
Effective Piston Area	S	3.14*10 <sup>-4</sup>	m <sup>2</sup>
Equivalent Air Volume	Vas	-	m <sup>3</sup>

## TW010F1

### 10 mm Polymer dome tweeter

Very compact dome tweeter, suitable for use in small 2-way systems or as a supertweeter.

- Formerless voice coil
- Balanced drive; dome and suspension are of one piece
- Exceptional transient response
- Easily coupled with first order crossover above 6K
- ferrofluid cooled voice coil
- 74 mm diameter flange



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	3000	Hz
Power Handling (IEC)	P	25	W
Sensitivity (1W/1m)	E	90	dB
Voice coil Diameter	$\varnothing$	10	mm
Minimum Impedance	Zmin	6.4	$\Omega$
DC Resistance	Re	5.5	$\Omega$
Voice Coil Inductance	Lbm	32	$\mu$ H
Voice Coil Length	h	2	mm
Former	-	-	-
Number of Layers	n	2	-
Magnet Weight	m	$17 \cdot 10^{-3}$	kg
Flux Density	B	1.1	T
Force Factor	BL	1.3	NA <sup>-1</sup>
Height of Magnet Gap	He	1.5	mm
Linear Excursion peak	Xmax	0.25	mm
Suspension Compliance	Cms	-	mN <sup>-1</sup>
Mechanical Q Factor	Qms	-	-
Electrical Q Factor	Qes	-	-
Total Q Factor	Qts	-	-
Moving Mass	Mms	$0.11 \cdot 10^{-3}$	kg
Effective Piston Area	S	$3.14 \cdot 10^{-4}$	m <sup>2</sup>
Equivalent Air Volume	Vas	-	m <sup>3</sup>

## TW010I1

### 10 mm ion deposited Titanium dome tweeter

Ion deposited pure titanium on a 10 mm polymer diaphragm. 3" diameter flange, 1/2" deep. Suitable as a super tweeter for home or automotive use.

- 91 dB efficiency
- Ferrofluid cooled voice coil
- Direct drive, voice coil wound onto suspension
- 74 mm diameter flange
- Attractive faceplate



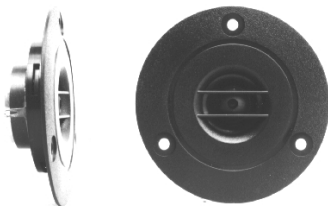
Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	3000	Hz
Power Handling (IEC)	P	25	W
Sensitivity (1W/1m)	E	91	dB
Voice coil Diameter	$\varnothing$	10	mm
Minimum Impedance	Zmin	6.4	$\Omega$
DC Resistance	Re	5.5	$\Omega$
Voice Coil Inductance	Lbm	32	$\mu$ H
Voice Coil Length	h	2	mm
Former	-	-	-
Number of Layers	n	2	-
Magnet Weight	m	$17 \cdot 10^{-3}$	kg
Flux Density	B	1.1	T
Force Factor	BL	1.3	NA <sup>-1</sup>
Height of Magnet Gap	He	1.5	mm
Linear Excursion peak	Xmax	0.25	mm
Suspension Compliance	Cms	-	mN <sup>-1</sup>
Mechanical Q Factor	Qms	-	-
Electrical Q Factor	Qes	-	-
Total Q Factor	Qts	-	-
Moving Mass	Mms	$0.11 \cdot 10^{-3}$	kg
Effective Piston Area	S	$3.14 \cdot 10^{-2}$	m <sup>2</sup>
Equivalent Air Volume	Vas	$\cdot 10^{-3}$	m <sup>3</sup>

## TW014F1

### 14 mm Polymer dome tweeter

Compact, high efficiency tweeter for automotive and home use. Suitable for use as a supertweeter or in efficient 2-way designs.

- 91 dB efficiency
- Ferrofluid cooled voice coil
- Direct drive; voice coil wound onto suspension
- 74 mm diameter flange
- High definition
- 6 db slope above 5K



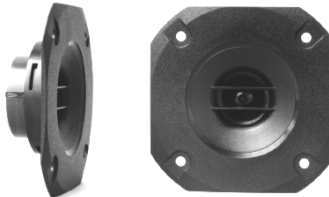
Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	2050	Hz
Power Handling (IEC)	P	45	W
Sensitivity (1W/1m)	E	91	dB
Voice coil Diameter	$\varnothing$	14	mm
Minimum Impedance	Zmin	7.2	$\Omega$
DC Resistance	Re	5.7	$\Omega$
Voice Coil Inductance	Lbm	43	$\mu$ H
Voice Coil Length	h	2	mm
Former	-	-	-
Number of Layers	n	2	-
Magnet Weight	m	$17 \cdot 10^{-3}$	kg
Flux Density	B	1.25	T
Force Factor	BL	1.6	NA <sup>-1</sup>
Height of Magnet Gap	He	1.5	mm
Linear Excursion peak	Xmax	0.25	mm
Suspension Compliance	Cms	-	mN <sup>-1</sup>
Mechanical Q Factor	Qms	-	-
Electrical Q Factor	Qes	-	-
Total Q Factor	Qts	-	-
Moving Mass	Mms	$0.19 \cdot 10^{-3}$	kg
Effective Piston Area	S	$6.6 \cdot 10^{-4}$	m <sup>2</sup>
Equivalent Air Volume	Vas	-	m <sup>3</sup>

## AW014G1

### 14 mm Polymer dome tweeter

Compact, high efficiency tweeter for A/V systems and home use. Suitable for use as a supertweeter or in efficient 2-way designs. Used in VAT414 Kit.

- 95 dB efficiency
- Ferrofluid cooled voice coil
- Direct drive; voice coil wound onto suspension
- 80 mm square flange
- High definition



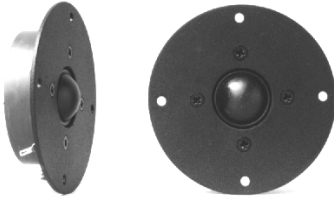
Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	2050	Hz
Power Handling (IEC)	P	45	W
Sensitivity (1W/1m)	E	95	dB
Voice coil Diameter	$\varnothing$	14	mm
Minimum Impedance	Zmin	6.8	$\Omega$
DC Resistance	Re	5.7	$\Omega$
Voice Coil Inductance	Lbm	37	$\mu$ H
Voice Coil Length	h	2	mm
Former	-	-	-
Number of Layers	n	2	-
Magnet Weight	m	.034	kg
Flux Density	B	1.35	T
Force Factor	BL	1.8	NA <sup>-1</sup>
Height of Magnet Gap	He	1.5	mm
Linear Excursion peak	Xmax	0.25	mm
Suspension Compliance	Cms	-	mN <sup>-1</sup>
Mechanical Q Factor	Qms	-	-
Electrical Q Factor	Qes	-	-
Total Q Factor	Qts	-	-
Moving Mass	Mms	$0.19 \cdot 10^{-3}$	kg
Effective Piston Area	S	$6.6 \cdot 10^{-4}$	m <sup>2</sup>
Equivalent Air Volume	Vas	-	m <sup>3</sup>

## TW025A0

### 25 mm Textile dome tweeter

Egg shaped dome tweeter with frequency response beyond 20K. Clear, smooth and transparent sound reproduction.

- Egg shaped dome for maximum stiffness at the tip and for no phase break up at the tip.
- 1" impregnated textile dome
- 91 db efficiency
- 100 mm aluminium face plate
- Replaceable voice coil
- X-over down to 3K



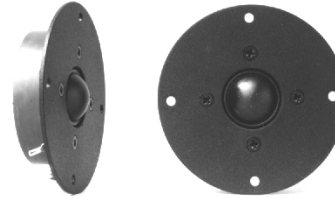
Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	900	Hz
Power Handling (IEC)	P	55	W
Sensitivity (1W/1m)	E	90	dB
Voice coil Diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	6.5	$\Omega$
DC Resistance	Re	5.8	$\Omega$
Voice Coil Inductance	Lbm	11	$\mu$ H
Voice Coil Length	h	1.6	mm
Former	-	alum.	-
Number of Layers	n	2	-
Magnet Weight	m	240*10 <sup>-3</sup>	kg
Flux Density	B	1.5	T
Force Factor	BL	2.9	NA <sup>-1</sup>
Height of Magnet Gap	He	3	mm
Linear Excursion peak	Xmax	0.3	mm
Suspension Compliance	Cms	-	mN <sup>-1</sup>
Mechanical Q Factor	Qms	-	-
Electrical Q Factor	Qes	-	-
Total Q Factor	Qts	-	-
Moving Mass	Mms	0.29*10 <sup>-3</sup>	kg
Effective Piston Area	S	6.2*10 <sup>-4</sup>	m <sup>2</sup>
Equivalent Air Volume	Vas	-	m <sup>3</sup>

## TW025A1

### 25 mm Textile dome tweeter

Same as the TW025A0 but with ferrofluid for increased power handling.

- Egg shaped dome for maximum stiffness at the tip and for no phase break up at the tip.
- 1" impregnated textile dome
- 100 mm aluminum face plate
- Ferrofluid cooled voice coil
- 90.5 db efficiency
- Replaceable voice coil
- Extended frequency response



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	1200	Hz
Power Handling (IEC)	P	70	W
Sensitivity (1W/1m)	E	90	dB
Voice coil Diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	7	$\Omega$
DC Resistance	Re	5.8	$\Omega$
Voice Coil Inductance	Lbm	13	$\mu$ H
Voice Coil Length	h	1.6	mm
Former	-	alum.	-
Number of Layers	n	2	-
Magnet Weight	m	240*10 <sup>-3</sup>	kg
Flux Density	B	1.6	T
Force Factor	BL	3.1	NA <sup>-1</sup>
Height of Magnet Gap	He	3	mm
Linear Excursion peak	Xmax	0.3	mm
Suspension Compliance	Cms	-	mN <sup>-1</sup>
Mechanical Q Factor	Qms	-	-
Electrical Q Factor	Qes	-	-
Total Q Factor	Qts	-	-
Moving Mass	Mms	0.29*10 <sup>-3</sup>	kg
Effective Piston Area	S	6.2*10 <sup>-4</sup>	m <sup>2</sup>
Equivalent Air Volume	Vas	-	m <sup>3</sup>

## TW025M0

### 25 mm Textile dome tweeter

Egg shaped dome tweeter, slightly horn loaded for higher efficiency and exceptional linearity

- Egg shaped dome for maximum stiffness at the tip and for no phase break up at the tip.
- 1" impregnated textile dome
- 100 mm reinforced glass fiber polymer face plate
- 92 db efficiency
- Replaceable voice coil



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	900	Hz
Power Handling (IEC)	P	55	W
Sensitivity (1W/1m)	E	92	dB
Voice coil Diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	6.5	$\Omega$
DC Resistance	Re	5.8	$\Omega$
Voice Coil Inductance	Lbm	11	$\mu$ H
Voice Coil Length	h	1.6	mm
Former	-	alum.	-
Number of Layers	n	2	-
Magnet Weight	m	240*10 <sup>-3</sup>	kg
Flux Density	B	1.5	T
Force Factor	BL	2.9	NA <sup>-1</sup>
Height of Magnet Gap	He	3	mm
Linear Excursion peak	Xmax	0.3	mm
Suspension Compliance	Cms	-	mN <sup>-1</sup>
Mechanical Q Factor	Qms	-	-
Electrical Q Factor	Qes	-	-
Total Q Factor	Qts	-	-
Moving Mass	Mms	0.29*10 <sup>-3</sup>	kg
Effective Piston Area	S	6.2*10 <sup>-4</sup>	m <sup>2</sup>
Equivalent Air Volume	Vas	-	m <sup>3</sup>

## TW025M1

### 25 mm Textile dome tweeter

Same as TW025M0 but with ferrofluid cooled voice coil for better power handling.

- Egg shaped dome for maximum stiffness at the tip and for no phase break up at the tip.
- 1" impregnated textile dome
- Ferrofluid cooled voice coil
- 100 mm reinforced glass fiber polymer face plate
- 92 db efficiency
- Replaceable voice coil



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	1200	Hz
Power Handling (IEC)	P	70	W
Sensitivity (1W/1m)	E	92	dB
Voice coil Diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	7	$\Omega$
DC Resistance	Re	5.8	$\Omega$
Voice Coil Inductance	Lbm	13	$\mu$ H
Voice Coil Length	h	1.6	mm
Former	-	alum.	-
Number of Layers	n	2	-
Magnet Weight	m	240*10 <sup>-3</sup>	kg
Flux Density	B	1.6	T
Force Factor	BL	3.1	NA <sup>-1</sup>
Height of Magnet Gap	He	3	mm
Linear Excursion peak	Xmax	0.3	mm
Suspension Compliance	Cms	-	mN <sup>-1</sup>
Mechanical Q Factor	Qms	-	-
Electrical Q Factor	Qes	-	-
Total Q Factor	Qts	-	-
Moving Mass	Mms	0.29*10 <sup>-3</sup>	kg
Effective Piston Area	S	6.2*10 <sup>-4</sup>	m <sup>2</sup>
Equivalent Air Volume	Vas	-	m <sup>3</sup>

## AW025M1

### 25mm Shielded Textile dome tweeter

Shielded magnet tweeter for Audio/Video use. Chambered back and vented pole piece for lower resonant frequency.

- Shielded magnet
- Impregnated textile dome
- Ferrofluid cooled voice coil
- Vented pole piece with chambered back
- Glass fiber reinforced polymer faceplate
- Replaceable voice coil



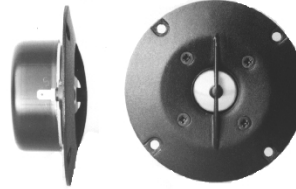
Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	1000	Hz
Power Handling (IEC)	P	70	W
Sensitivity (1W/1m)	E	90	dB
Voice coil Diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	6.7	$\Omega$
DC Resistance	Re	5.8	$\Omega$
Voice Coil Inductance	Lbm	25	$\mu$ H
Voice Coil Length	h	1.6	mm
Former	-	alum.	-
Number of Layers	n	2	-
Magnet Weight	m	$150 \times 10^{-3}$	kg
Flux Density	B	1.3	T
Force Factor	BL	2.2	NA <sup>-1</sup>
Height of Magnet Gap	He	3	mm
Linear Excursion peak	Xmax	0.3	mm
Suspension Compliance	Cms	-	mN <sup>-1</sup>
Mechanical Q Factor	Qms	-	-
Electrical Q Factor	Qes	-	-
Total Q Factor	Qts	-	-
Moving Mass	Mms	$0.29 \times 10^{-3}$	kg
Effective Piston Area	S	$6.2 \times 10^{-4}$	m <sup>2</sup>
Equivalent Air Volume	Vas	-	m <sup>3</sup>

## AW025S1

### 25mm Shielded Titanium dome tweeter

Titanium dome shielded magnet tweeter for Audio/Video use. Chambered back with vented pole piece for lower x-over point.

- Shielded magnet
- Titanium dome
- Ferrofluid cooled voice coil
- Vented pole piece with chambered back
- Glass fiber reinforced polymer faceplate
- Replaceable voice coil



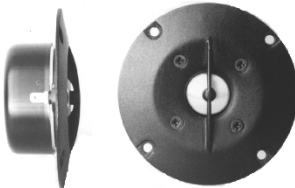
Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	1050	Hz
Power Handling (IEC)	P	80	W
Sensitivity (1W/1m)	E	92	dB
Voice coil Diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	7	$\Omega$
DC Resistance	Re	5.8	$\Omega$
Voice Coil Inductance	Lbm	25	$\mu$ H
Voice Coil Length	h	1.6	mm
Former	-	alum.	-
Number of Layers	n	2	-
Magnet Weight	m	$150 \times 10^{-3}$	kg
Flux Density	B	1.3	T
Force Factor	BL	2.2	NA <sup>-1</sup>
Height of Magnet Gap	He	3	mm
Linear Excursion peak	Xmax	0.3	mm
Suspension Compliance	Cms	-	mN <sup>-1</sup>
Mechanical Q Factor	Qms	-	-
Electrical Q Factor	Qes	-	-
Total Q Factor	Qts	-	-
Moving Mass	Mms	$0.31 \times 10^{-3}$	kg
Effective Piston Area	S	$6.2 \times 10^{-4}$	m <sup>2</sup>
Equivalent Air Volume	Vas	-	m <sup>3</sup>

## AW025S3

### 25mm Shielded Aluminum alloy tweeter

Shielded magnet tweeter with aluminum alloy dome for Audio/Video use. Smooth and detailed response beyond 20 KHz.

- Shielded magnet
- Aluminum alloy dome, soft polymer suspension
- Chambered back with vented pole piece
- Ferrofluid cooled voice coil
- Polymer faceplate
- Replaceable voice coil



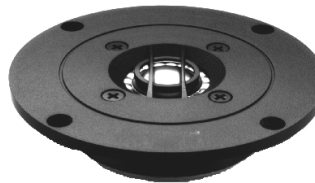
Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	1150	Hz
Power Handling (IEC)	P	80	W
Sensitivity (1W/1m)	E	92	dB
Voice coil Diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	7	$\Omega$
DC Resistance	Re	5.8	$\Omega$
Voice Coil Inductance	Lbm	25	$\mu$ H
Voice Coil Length	h	1.6	mm
Former	-	alum.	-
Number of Layers	n	2	-
Magnet Weight	m	$150 \times 10^{-3}$	kg
Flux Density	B	1.3	T
Force Factor	BL	2.2	NA <sup>-1</sup>
Height of Magnet Gap	He	3	mm
Linear Excursion peak	Xmax	0.3	mm
Suspension Compliance	Cms	-	mN <sup>-1</sup>
Mechanical Q Factor	Qms	-	-
Electrical Q Factor	Qes	-	-
Total Q Factor	Qts	-	-
Moving Mass	Mms	$0.31 \times 10^{-3}$	kg
Effective Piston Area	S	$6.2 \times 10^{-4}$	m <sup>2</sup>
Equivalent Air Volume	Vas	-	m <sup>3</sup>

## DTI01

### 25mm Titanium dome tweeter

Extremely flat response to 29KHz at 94db efficiency. Does not show high frequency distortion of other metal domes.

- Dome and suspension made of a single piece of titanium, eliminating termination point reflections
- Kapton voice coil former
- Protective phase ring
- Detailed transient response
- Polymer faceplate



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	6	$\Omega$
Resonance Frequency	Fs	1700	Hz
Power Handling (IEC)	P	50	W
Sensitivity (1W/1m)	E	94	dB
Voice coil Diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	5.5	$\Omega$
DC Resistance	Re	4.1	$\Omega$
Voice Coil Inductance	Lbm	-	$\mu$ H
Voice Coil Length	h	2	mm
Former	-	Kapton	-
Number of Layers	n	-	-
Magnet Weight	m	-	kg
Flux Density	B	-	T
Force Factor	BL	-	NA <sup>-1</sup>
Height of Magnet Gap	He	2.5	mm
Linear Excursion peak	Xmax	-	mm
Suspension Compliance	Cms	-	mN <sup>-1</sup>
Mechanical Q Factor	Qms	-	-
Electrical Q Factor	Qes	-	-
Total Q Factor	Qts	-	-
Moving Mass	Mms	-	kg
Effective Piston Area	S	-	m <sup>2</sup>
Equivalent Air Volume	Vas	-	m <sup>3</sup>

## HM100ZO

### 4" Aerogel cone midrange

High Density Aerogel cone with impregnated Carbon / Kevlar fibers for a very light and stiff cone. Precise and detailed, but retaining a neutral tonal balance. Exceptional midrange driver.

- HD-Aerogel cone with rubber surround
- Diecast chassis
- Edgewound copper voice coil on a Kapton former
- Gold plated terminals



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	250	Hz
Power Handling (IEC)	P	40	W
Sensitivity (1W/1m)	E	93	dB
Voice coil Diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	7	$\Omega$
DC Resistance	Re	6.4	$\Omega$
Voice Coil Inductance	Lbm	0.19	$\mu$ H
Voice Coil Length	h	6.5	mm
Former	-	Kapton	-
Number of Layers	n	1	-
Magnet Weight	m	$350 \cdot 10^{-3}$	kg
Flux Density	B	1.1	T
Force Factor	BL	4.7	NA <sup>-1</sup>
Height of Magnet Gap	He	4	mm
Linear Excursion peak	Xmax	1.25	mm
Suspension Compliance	Cms	$0.21 \cdot 10^{-3}$	mN <sup>-1</sup>
Mechanical Q Factor	Qms	4.26	-
Electrical Q Factor	Qes	0.99	-
Total Q Factor	Qts	0.81	-
Moving Mass	Mms	$2.5 \cdot 10^{-3}$	kg
Effective Piston Area	S	$0.52 \cdot 10^{-2}$	m <sup>2</sup>
Equivalent Air Volume	Vas	0.84	ltr

## HM130ZO

### 5 1/4" Aerogel cone midrange

This midrange driver should be a good choice as a midrange in a 3-way system, or coupled with another mid in a MTM design used with a subwoofer.

- HD-Aerogel cone with rubber surround
- Diecast chassis
- Edgewound copper voice coil on a Kapton former
- Phase plug
- Gold plated terminals



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	68	Hz
Power Handling (IEC)	P	50	W
Sensitivity (1W/1m)	E	92	dB
Voice coil Diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	6.7	$\Omega$
DC Resistance	Re	6.4	$\Omega$
Voice Coil Inductance	Lbm	0.22	mH
Voice Coil Length	h	11	mm
Former	-	Kapton	-
Number of Layers	n	1	-
Magnet Weight	m	$345 \cdot 10^{-3}$	kg
Flux Density	B	1.1	T
Force Factor	BL	7.1	NA <sup>-1</sup>
Height of Magnet Gap	He	5	mm
Linear Excursion peak	Xmax	2	mm
Suspension Compliance	Cms	$0.92 \cdot 10^{-3}$	mN <sup>-1</sup>
Mechanical Q Factor	Qms	12.16	-
Electrical Q Factor	Qes	0.32	-
Total Q Factor	Qts	0.31	-
Moving Mass	Mms	$5.9 \cdot 10^{-3}$	kg
Effective Piston Area	S	$85.7 \cdot 10^{-2}$	m <sup>2</sup>
Equivalent Air Volume	Vas	8.3	ltr
Mass of Speaker	M	1.08	kg

## HM170ZO

### 6 1/2" Aerogel cone bass midrange

This high definition driver should work well in any high end 2-way design as well as a D'Appolito (MTM) design.

- HD-Aerogel cone with rubber surround
- Diecast chassis
- Edgewound copper voice coil on a Kapton former
- Phase plug
- Venting under spider
- Gold plated terminals



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	40	Hz
Power Handling (IEC)	P	60	W
Sensitivity (1W/1m)	E	91	dB
Voice coil Diameter	$\varnothing$	30	mm
Minimum Impedance	Zmin	7.4	$\Omega$
DC Resistance	Re	6.2	$\Omega$
Voice Coil Inductance	Lbm	0.34	mH
Voice Coil Length	h	12.5	mm
Former	-	Kapton	-
Number of Layers	n	1	-
Magnet Weight	m	$310 \cdot 10^{-3}$	kg
Flux Density	B	1	T
Force Factor	BL	6	NA <sup>-1</sup>
Height of Magnet Gap	He	5	mm
Linear Excursion peak	Xmax	3.75	mm
Suspension Compliance	Cms	$1.67 \cdot 10^{-3}$	mN <sup>-1</sup>
Mechanical Q Factor	Qms	6.15	-
Electrical Q Factor	Qes	0.42	-
Total Q Factor	Qts	0.40	-
Moving Mass	Mms	$9.9 \cdot 10^{-3}$	kg
Effective Piston Area	S	$138 \cdot 10^{-2}$	m <sup>2</sup>
Equivalent Air Volume	Vas	45.3	ltr
Mass of Speaker	M	1.3	kg

## HM210ZO

### 8" Aerogel cone bass midrange

Designed for no-compromise high end 2 or 3-way systems. Exceptionally smooth high end response.

- HD-Aerogel cone with rubber surround
- Diecast chassis
- Edgewound copper voice coil on a Kapton former
- Phase plug
- Venting under spider
- Gold plated terminals



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	30	Hz
Power Handling (IEC)	P	70	W
Sensitivity (1W/1m)	E	91	dB
Voice coil Diameter	$\varnothing$	40	mm
Minimum Impedance	Zmin	7.9	$\Omega$
DC Resistance	Re	6.3	$\Omega$
Voice Coil Inductance	Lbm	0.47	mH
Voice Coil Length	h	14.5	mm
Former	-	Kapton	-
Number of Layers	n	1	-
Magnet Weight	m	$550 \cdot 10^{-3}$	kg
Flux Density	B	1	T
Force Factor	BL	7.7	NA <sup>-1</sup>
Height of Magnet Gap	He	8.6	mm
Linear Excursion peak	Xmax	4.25	mm
Suspension Compliance	Cms	$1.4 \cdot 10^{-3}$	mN <sup>-1</sup>
Mechanical Q Factor	Qms	6.45	-
Electrical Q Factor	Qes	0.32	-
Total Q Factor	Qts	0.31	-
Moving Mass	Mms	$21.1 \cdot 10^{-3}$	kg
Effective Piston Area	S	$2.32 \cdot 10^{-2}$	m <sup>2</sup>
Equivalent Air Volume	Vas	108.1	ltr
Mass of Speaker	M	2.2	kg



## HM100G0

### 4" Treated paper cone bass mid

Curvilinear shaped cone coated with a visco elastic compound for an exceptionally smooth response. Suitable as a small bass driver or as a midrange.

- Critically damped paper cone
- Diecast basket
- Rubber surround
- Edgewound copper voice coil on a Kapton former
- Vented spider and pole piece
- Gold plated terminals



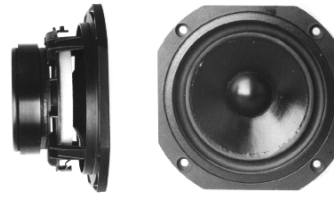
Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	55	Hz
Power Handling (IEC)	P	40	W
Sensitivity (1W/1m)	E	89	dB
Voice coil Diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	7.7	$\Omega$
DC Resistance	Re	6.4	$\Omega$
Voice Coil Inductance	Lbm	0.33	mH
Voice Coil Length	h	9.2	mm
Former	-	Kapton	-
Number of Layers	n	1	-
Magnet Weight	m	$345 \cdot 10^{-3}$	kg
Flux Density	B	1.1	T
Force Factor	BL	6.37	NA <sup>-1</sup>
Height of Magnet Gap	He	5	mm
Linear Excursion peak	Xmax	2.1	mm
Suspension Compliance	Cms	$1.65 \cdot 10^{-3}$	mN <sup>-1</sup>
Mechanical Q Factor	Qms	3.34	-
Electrical Q Factor	Qes	0.27	-
Total Q Factor	Qts	0.25	-
Moving Mass	Mms	$5.1 \cdot 10^{-3}$	kg
Effective Piston Area	S	$0.51 \cdot 10^{-2}$	m <sup>2</sup>
Equivalent Air Volume	Vas	6.2	ltr
Mass of Speaker	M	0.94	kg

## HM130G0

### 5.25" Treated Paper cone bass mid

Designed for high end compact 2-way and satellite systems, but looks good as a midrange or in a D'Appolito arrangement.

- Critically damped paper cone
- Diecast basket
- Rubber surround
- Edgewound copper voice coil on a Kapton former
- Vented spider and pole piece
- Gold plated terminals
- 92 dB efficiency



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	41	Hz
Power Handling (IEC)	P	50	W
Sensitivity (1W/1m)	E	92	dB
Voice coil Diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	9	$\Omega$
DC Resistance	Re	6.2	$\Omega$
Voice Coil Inductance	Lbm	0.39	mH
Voice Coil Length	h	9.6	mm
Former	-	Kapton	-
Number of Layers	n	1	-
Magnet Weight	m	$345 \cdot 10^{-3}$	kg
Flux Density	B	1.1	T
Force Factor	BL	6.47	NA <sup>-1</sup>
Height of Magnet Gap	He	5	mm
Linear Excursion peak	Xmax	2.3	mm
Suspension Compliance	Cms	$2.28 \cdot 10^{-3}$	mN <sup>-1</sup>
Mechanical Q Factor	Qms	3.24	-
Electrical Q Factor	Qes	0.25	-
Total Q Factor	Qts	0.23	-
Moving Mass	Mms	$6.6 \cdot 10^{-3}$	kg
Effective Piston Area	S	$0.85 \cdot 10^{-2}$	m <sup>2</sup>
Equivalent Air Volume	Vas	23.1	ltr
Mass of Speaker	M	1.05	kg

## HM170G0

### 6.5" Treated Paper cone bass mid

Good for small 2-way's or as satellite speakers, this driver has very smooth high end rolloff.

- Critically damped paper cone
- Diecast basket
- Rubber surround
- Edgewound copper voice coil on a Kapton former
- Vented spider and pole piece
- Gold plated terminals
- 91 dB efficiency



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	42	Hz
Power Handling (IEC)	P	60	W
Sensitivity (1W/1m)	E	90	dB
Voice coil Diameter	$\varnothing$	30	mm
Minimum Impedance	Zmin	7.5	$\Omega$
DC Resistance	Re	6.6	$\Omega$
Voice Coil Inductance	Lbm	0.41	mH
Voice Coil Length	h	12	mm
Former	-	Kapton	-
Number of Layers	n	1	-
Magnet Weight	m	$550 \cdot 10^{-3}$	kg
Flux Density	B	1.2	T
Force Factor	BL	7.4	NA <sup>-1</sup>
Height of Magnet Gap	He	6	mm
Linear Excursion peak	Xmax	3	mm
Suspension Compliance	Cms	$1.2 \cdot 10^{-3}$	mN <sup>-1</sup>
Mechanical Q Factor	Qms	7.83	-
Electrical Q Factor	Qes	0.38	-
Total Q Factor	Qts	0.36	-
Moving Mass	Mms	$11.9 \cdot 10^{-3}$	kg
Effective Piston Area	S	$1.39 \cdot 10^{-2}$	m <sup>2</sup>
Equivalent Air Volume	Vas	32.5	ltr
Mass of Speaker	M	1.7	kg

## HM210G0

### 8" Treated Paper cone bass mid

This woofer with it's smooth rolloff at 3K, makes it ideal for a high end 2-way or 3-way system.

- Critically damped paper cone
- Diecast basket
- Rubber surround
- Edgewound copper voice coil on a Kapton former
- Vented spider and pole piece
- Gold plated terminals
- 91 dB efficiency



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	30	Hz
Power Handling (IEC)	P	70	W
Sensitivity (1W/1m)	E	91	dB
Voice coil Diameter	$\varnothing$	40	mm
Minimum Impedance	Zmin	7.5	$\Omega$
DC Resistance	Re	6.4	$\Omega$
Voice Coil Inductance	Lbm	0.58	mH
Voice Coil Length	h	14.3	mm
Former	-	Kapton	-
Number of Layers	n	1	-
Magnet Weight	m	$550 \cdot 10^{-3}$	kg
Flux Density	B	1	T
Force Factor	BL	7.75	NA <sup>-1</sup>
Height of Magnet Gap	He	6	mm
Linear Excursion peak	Xmax	4.15	mm
Suspension Compliance	Cms	$1.54 \cdot 10^{-3}$	mN <sup>-1</sup>
Mechanical Q Factor	Qms	2.7	-
Electrical Q Factor	Qes	0.36	-
Total Q Factor	Qts	0.32	-
Moving Mass	Mms	$18.1 \cdot 10^{-3}$	kg
Effective Piston Area	S	$2.32 \cdot 10^{-2}$	m <sup>2</sup>
Equivalent Air Volume	Vas	116	ltr
Mass of Speaker	M	2.1	kg

## HM100C0

### 4" Carbon Fiber cone bass mid

This mid/bass driver should perform well in small 2-way's or as a midrange in a 3-way or D'Appolito system.

- Woven carbon fiber cone
- Diecast basket
- Rubber surround
- Edgewound copper voice coil on a Kapton former
- Vented spider and pole piece
- Gold plated terminals



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	54	Hz
Power Handling (IEC)	P	40	W
Sensitivity (1W/1m)	E	89	dB
Voice coil Diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	7.7	$\Omega$
DC Resistance	Re	6.4	$\Omega$
Voice Coil Inductance	Lbm	0.11	mH
Voice Coil Length	h	9.6	mm
Former	-	Kapton	-
Number of Layers	n	1	-
Magnet Weight	m	$345 \cdot 10^{-3}$	kg
Flux Density	B	1	T
Force Factor	BL	6.96	NA <sup>-1</sup>
Height of Magnet Gap	He	6	mm
Linear Excursion peak	Xmax	1.8	mm
Suspension Compliance	Cms	$1.55 \cdot 10^{-3}$	mN <sup>-1</sup>
Mechanical Q Factor	Qms	3.27	-
Electrical Q Factor	Qes	0.22	-
Total Q Factor	Qts	0.21	-
Moving Mass	Mms	$5.1 \cdot 10^{-3}$	kg
Effective Piston Area	S	$0.51 \cdot 10^{-2}$	m <sup>2</sup>
Equivalent Air Volume	Vas	6.4	ltr
Mass of Speaker	M	0.93	kg

## HM130C0

### 5 1/4" Carbon Fiber cone bass mid

This driver features a very stiff and light cone material for fast and accurate response. Good for small 2-way's or as a mid-range.

- Woven carbon fiber cone
- Diecast basket
- Rubber surround
- Edgewound copper voice coil on a Kapton former
- Vented spider and pole piece
- Gold plated terminals



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	46	Hz
Power Handling (IEC)	P	50	W
Sensitivity (1W/1m)	E	90	dB
Voice coil Diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	7	$\Omega$
DC Resistance	Re	6.2	$\Omega$
Voice Coil Inductance	Lbm	0.39	mH
Voice Coil Length	h	11	mm
Former	-	Kapton	-
Number of Layers	n	1	-
Magnet Weight	m	$345 \cdot 10^{-3}$	kg
Flux Density	B	1.1	T
Force Factor	BL	5.97	NA <sup>-1</sup>
Height of Magnet Gap	He	5	mm
Linear Excursion peak	Xmax	3	mm
Suspension Compliance	Cms	$1.78 \cdot 10^{-3}$	mN <sup>-1</sup>
Mechanical Q Factor	Qms	3.6	-
Electrical Q Factor	Qes	0.34	-
Total Q Factor	Qts	0.31	-
Moving Mass	Mms	$6.97 \cdot 10^{-3}$	kg
Effective Piston Area	S	$0.85 \cdot 10^{-2}$	m <sup>2</sup>
Equivalent Air Volume	Vas	18.1	ltr
Mass of Speaker	M	1.4	kg

## HM170C0

### 6.5" Carbon Fiber cone bass mid

This driver looks good for a high end 2-way system or a MTM design. Fast and efficient.

- Woven carbon fiber cone
- Diecast basket
- Rubber surround
- Edgewound copper voice coil on a Kapton former
- Vented spider and pole piece
- Gold plated terminals



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	42	Hz
Power Handling (IEC)	P	60	W
Sensitivity (1W/1m)	E	90	dB
Voice coil Diameter	$\varnothing$	30	mm
Minimum Impedance	Zmin	7.2	$\Omega$
DC Resistance	Re	6.3	$\Omega$
Voice Coil Inductance	Lbm	0.24	mH
Voice Coil Length	h	12	mm
Former	-	Kapton	-
Number of Layers	n	1	-
Magnet Weight	m	$550 \cdot 10^{-3}$	kg
Flux Density	B	1	T
Force Factor	BL	7.6	NA <sup>-1</sup>
Height of Magnet Gap	He	6	mm
Linear Excursion peak	Xmax	3	mm
Suspension Compliance	Cms	$1.2 \cdot 10^{-3}$	mN <sup>-1</sup>
Mechanical Q Factor	Qms	4.16	-
Electrical Q Factor	Qes	0.35	-
Total Q Factor	Qts	0.32	-
Moving Mass	Mms	$12.4 \cdot 10^{-3}$	kg
Effective Piston Area	S	$1.36 \cdot 10^{-2}$	m <sup>2</sup>
Equivalent Air Volume	Vas	30.6	ltr
Mass of Speaker	M	1.7	kg

## HM210C0

### 8" Carbon Fiber cone bass mid

Very efficient bass driver for 2 or 3-way designs. Extremely flat high end response with smooth rolloff.

- Woven carbon fiber cone
- Diecast basket
- Rubber surround
- Edgewound copper voice coil on a Kapton former
- Vented spider and pole piece
- Gold plated terminals



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	31	Hz
Power Handling (IEC)	P	70	W
Sensitivity (1W/1m)	E	90	dB
Voice coil Diameter	$\varnothing$	40	mm
Minimum Impedance	Zmin	6.9	$\Omega$
DC Resistance	Re	6.5	$\Omega$
Voice Coil Inductance	Lbm	0.42	mH
Voice Coil Length	h	14.3	mm
Former	-	Kapton	-
Number of Layers	n	1	-
Magnet Weight	m	$550 \cdot 10^{-3}$	kg
Flux Density	B	1	T
Force Factor	BL	8.5	NA <sup>-1</sup>
Height of Magnet Gap	He	6	mm
Linear Excursion peak	Xmax	4.15	mm
Suspension Compliance	Cms	$1.1 \cdot 10^{-3}$	mN <sup>-1</sup>
Mechanical Q Factor	Qms	5.17	-
Electrical Q Factor	Qes	0.42	-
Total Q Factor	Qts	0.39	-
Moving Mass	Mms	$23.5 \cdot 10^{-3}$	kg
Effective Piston Area	S	$2.32 \cdot 10^{-2}$	m <sup>2</sup>
Equivalent Air Volume	Vas	83.1	ltr
Mass of Speaker	M	2.1	kg

## HT100K0

### 4" Kevlar cone bass midrange

This 4" kevlar driver should be good in small 2-ways, as a mid in a 3-way or in autosound applications.

- Black woven kevlar cone
- Rubber surround
- Large magnet (240g)
- Low Resonance (62Hz)
- Decorative stamped frame



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	58	Hz
Power Handling (IEC)	P	30	W
Sensitivity (1W/1m)	E	88	dB
Voice coil Diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	7	$\Omega$
DC Resistance	Re	5.9	$\Omega$
Voice Coil Inductance	Lbm	0.34	mH
Voice Coil Length	h	10	mm
Former	-	Alum.	-
Number of Layers	n	2	-
Magnet Weight	m	240*10 <sup>-3</sup>	kg
Flux Density	B	1	T
Force Factor	BL	4.83	NA <sup>-1</sup>
Height of Magnet Gap	He	4	mm
Linear Excursion peak	Xmax	3	mm
Suspension Compliance	Cms	1.43*10 <sup>-3</sup>	mN <sup>-1</sup>
Mechanical Q Factor	Qms	2.15	-
Electrical Q Factor	Qes	0.48	-
Total Q Factor	Qts	0.40	-
Moving Mass	Mms	5.23*10 <sup>-3</sup>	kg
Effective Piston Area	S	5.1*10 <sup>-3</sup>	m <sup>2</sup>
Equivalent Air Volume	Vas	5.21	ltr
Mass of Speaker	M	0.59	kg

## HT130K0

### 5.25" Woven Kevlar cone bass mid

Efficient driver with rubber surround and kevlar cone. Suitable for small 2-way's or autosound. A good value.

- Black woven kevlar cone
- Rubber surround
- Large magnet (550g)
- Low resonance (45Hz)
- High temperature voice coil
- Decorative stamped frame



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	44	Hz
Power Handling (IEC)	P	40	W
Sensitivity (1W/1m)	E	90	dB
Voice coil Diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	8	$\Omega$
DC Resistance	Re	6.5	$\Omega$
Voice Coil Inductance	Lbm	0.14	mH
Voice Coil Length	h	11	mm
Former	-	Alum.	-
Number of Layers	n	2	-
Magnet Weight	m	550*10 <sup>-3</sup>	kg
Flux Density	B	1.3	T
Force Factor	BL	6.8	NA <sup>-1</sup>
Height of Magnet Gap	He	6	mm
Linear Excursion peak	Xmax	2.5	mm
Suspension Compliance	Cms	1.76*10 <sup>-3</sup>	mN <sup>-1</sup>
Mechanical Q Factor	Qms	1.72	-
Electrical Q Factor	Qes	0.29	-
Total Q Factor	Qts	0.25	-
Moving Mass	Mms	7.57*10 <sup>-3</sup>	kg
Effective Piston Area	S	8.5*10 <sup>-2</sup>	m <sup>2</sup>
Equivalent Air Volume	Vas	17.8	ltr
Mass of Speaker	M	1.4	kg

## HT170K0

### 6.5" Woven Kevlar cone bass mid

Good efficiency and light cone for a high end 2-way system or MTM design. Excellent transient response.

- Black woven kevlar cone
- Rubber surround
- Large magnet (550g)
- Low resonance (43Hz)
- High temperature voice coil
- Decorative stamped frame



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	48	Hz
Power Handling (IEC)	P	50	W
Sensitivity (1W/1m)	E	89	dB
Voice coil Diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	7.6	$\Omega$
DC Resistance	Re	6.7	$\Omega$
Voice Coil Inductance	Lbm	0.25	mH
Voice Coil Length	h	11	mm
Former	-	Alum.	-
Number of Layers	n	2	-
Magnet Weight	m	550*10 <sup>-3</sup>	kg
Flux Density	B	1.3	T
Force Factor	BL	7.13	NA <sup>-1</sup>
Height of Magnet Gap	He	6	mm
Linear Excursion peak	Xmax	2.5	mm
Suspension Compliance	Cms	0.84*10 <sup>-3</sup>	mN <sup>-1</sup>
Mechanical Q Factor	Qms	2.16	-
Electrical Q Factor	Qes	0.52	-
Total Q Factor	Qts	0.42	-
Moving Mass	Mms	13.3*10 <sup>-3</sup>	kg
Effective Piston Area	S	1.4*10 <sup>-2</sup>	m <sup>2</sup>
Equivalent Air Volume	Vas	23.1	ltr
Mass of Speaker	M	1.5	kg

## HT210K0

### 8" Woven Kevlar cone bass mid

This inexpensive kevlar woofer looks good for either a 2-way or 3-way design. Smooth high end response and rolloff.

- Black woven kevlar cone
- Rubber surround
- Large magnet (550g)
- Low resonance (33Hz)
- High temperature voice coil
- Decorative stamped frame



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	28	Hz
Power Handling (IEC)	P	70	W
Sensitivity (1W/1m)	E	90	dB
Voice coil Diameter	$\varnothing$	37	mm
Minimum Impedance	Zmin	7.7	$\Omega$
DC Resistance	Re	6.2	$\Omega$
Voice Coil Inductance	Lbm	0.61	mH
Voice Coil Length	h	15	mm
Former	-	Alum.	-
Number of Layers	n	2	-
Magnet Weight	m	550*10 <sup>-3</sup>	kg
Flux Density	B	1	T
Force Factor	BL	7.8	NA <sup>-1</sup>
Height of Magnet Gap	He	6	mm
Linear Excursion peak	Xmax	4.5	mm
Suspension Compliance	Cms	1.5*10 <sup>-3</sup>	mN <sup>-1</sup>
Mechanical Q Factor	Qms	1.76	-
Electrical Q Factor	Qes	0.38	-
Total Q Factor	Qts	0.31	-
Moving Mass	Mms	0.21*10 <sup>-3</sup>	kg
Effective Piston Area	S	2.24*10 <sup>-2</sup>	m <sup>2</sup>
Equivalent Air Volume	Vas	108.1	ltr
Mass of Speaker	M	1.72	kg

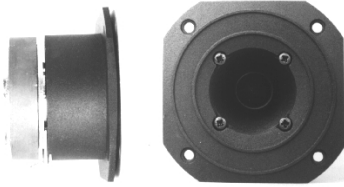


## PR12011

### 3/4" Titanium Bullet tweeter

This professional ring radiator horn tweeter features a Titanium diaphragm and solid aluminium phasing bullet for outstanding frequency response and no metal fatigue effects.

- 105 dB efficiency
- Pure Titanium diaphragm
- Zamak diecast horn
- Ferrofluid cooled voice coil
- Replaceable voice coil
- Smooth frequency response



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	8000	Hz
Power Handling (IEC)	P	120	W
Sensitivity (1W/1m)	E	105	dB
Voice coil Diameter	$\varnothing$	20	mm
Minimum Impedance	Zmin	7.5	$\Omega$
DC Resistance	Re	6.3	$\Omega$
Voice Coil Inductance	Lbm	60	$\mu$ H
Voice Coil Length	h	2	mm
Former	-	Alum.	-
Number of Layers	n	2	-
Magnet Weight	m	$240 \times 10^{-3}$	kg
Flux Density	B	1.57	T
Force Factor	BL	-	NA <sup>-1</sup>
Height of Magnet Gap	He	3	mm
Linear Excursion peak	Xmax	-	mm
Suspension Compliance	Cms	-	mN <sup>-1</sup>
Mechanical Q Factor	Qms	-	-
Electrical Q Factor	Qes	-	-
Total Q Factor	Qts	-	-
Moving Mass	Mms	-	kg
Effective Piston Area	S	-	m <sup>2</sup>

## PR125T1

### 1" Textile dome horn tweeter

The PR125T1 is a horn loaded tweeter with a 1" laminate textile dome. Very high efficiency and good power handling. Can be crossed over at 2800Hz, very low for this efficiency.

- 96 dB efficiency
- Catenary shape textile dome
- High impact polyimide horn
- Ferrofluid cooled voice coil
- Replaceable voice coil
- Low fs, 1170Hz



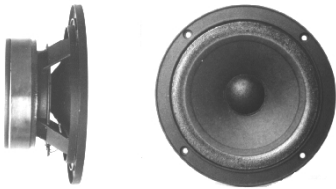
Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	1170	Hz
Power Handling (IEC)	P	70	W
Sensitivity (1W/1m)	E	96	dB
Voice coil Diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	6.5	$\Omega$
DC Resistance	Re	5.5	$\Omega$
Voice Coil Inductance	Lbm	11	$\mu$ H
Voice Coil Length	h	2	mm
Former	-	Alum.	-
Number of Layers	n	2	-
Magnet Weight	m	$240 \times 10^{-3}$	kg
Flux Density	B	1.5	T
Force Factor	BL	2.9	NA <sup>-1</sup>
Height of Magnet Gap	He	3	mm
Linear Excursion peak	Xmax	0.7	mm
Suspension Compliance	Cms	-	mN <sup>-1</sup>
Mechanical Q Factor	Qms	-	-
Electrical Q Factor	Qes	-	-
Total Q Factor	Qts	-	-
Moving Mass	Mms	$0.29 \times 10^{-3}$	kg
Effective Piston Area	S	$6.2 \times 10^{-4}$	m <sup>2</sup>

## PR170M0

### 6 1/2" Paper cone pro midrange

This driver has been designed for high quality professional sound reinforcement systems. High efficiency and high power handling.

- 100 dB efficiency
- 100 W power handling
- Diecast frame
- Treated flat foam surround
- Kapton voice coil former
- Flat aluminum edgewound voice coil (40mm)
- Gold plated terminals



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	117	Hz
Power Handling (IEC)	P	100	W
Sensitivity (1W/1m)	E	100	dB
Voice coil Diameter	$\varnothing$	40	mm
Minimum Impedance	Zmin	6.5	$\Omega$
DC Resistance	Re	6.2	$\Omega$
Voice Coil Inductance	Lbm	0.73	mH
Voice Coil Length	h	7	mm
Former	-	Kapton	-
Number of Layers	n	1	-
Magnet Weight	m	$880 \times 10^{-3}$	kg
Flux Density	B	1.4	T
Force Factor	BL	8.24	NA <sup>-1</sup>
Height of Magnet Gap	He	6	mm
Linear Excursion peak	Xmax	0.5	mm
Suspension Compliance	Cms	$2.0 \times 10^{-4}$	mN <sup>-1</sup>
Mechanical Q Factor	Qms	3.16	-
Electrical Q Factor	Qes	0.61	-
Total Q Factor	Qts	0.51	-
Moving Mass	Mms	$9.17 \times 10^{-3}$	kg
Effective Piston Area	S	$1.39 \times 10^{-2}$	m <sup>2</sup>
Equivalent Air Volume	Vas	5.5	ltr
Mass of Speaker	M	2.5	kg

## PR170Z0

### 6 1/2" Aerogel cone pro midrange

This driver has been designed for high quality professional sound reinforcement systems. High efficiency and high power handling.

- HDA Aerogel Cone
- 100 dB efficiency
- Rubber impregnated textile surround
- Diecast frame
- Treated flat foam surround
- Kapton voice coil former

Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	185	Hz
Power Handling (IEC)	P	100	W
Sensitivity (1W/1m)	E	99	dB
Voice coil Diameter	$\varnothing$	40	mm
Minimum Impedance	Zmin	6.8	$\Omega$
DC Resistance	Re	6.2	$\Omega$
Voice Coil Inductance	Lbm	0.73	mH
Voice Coil Length	h	7	mm
Former	-	Kapton	-
Number of Layers	n	1	-
Magnet Weight	m	$880 \times 10^{-3}$	kg
Flux Density	B	1.4	T
Force Factor	BL	10	NA <sup>-1</sup>
Height of Magnet Gap	He	6	mm
Linear Excursion peak	Xmax	0.5	mm
Suspension Compliance	Cms	$0.9 \times 10^{-4}$	mN <sup>-1</sup>
Mechanical Q Factor	Qms	2.19	-
Electrical Q Factor	Qes	0.49	-
Total Q Factor	Qts	0.40	-
Moving Mass	Mms	$6.2 \times 10^{-3}$	kg
Effective Piston Area	S	$1.4 \times 10^{-2}$	m <sup>2</sup>
Equivalent Air Volume	Vas	3.31	ltr
Mass of Speaker	M	2.5	kg

## HT080M0

### 3" Paper cone full range

Full range compact 3" driver with a usable frequency range of 95hz to 20khz. The compact size and good bass response of this driver should make it useful for many applications.

- 86dB efficiency
- Paper cone, foam surround
- F3 of 90hz in small sealed box
- High temperature voice coil
- 3 3/4" flange diameter
- 2" mounting depth



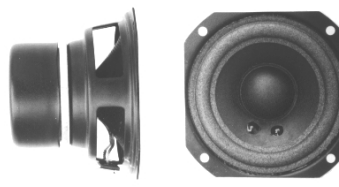
Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	80	Hz
Power Handling (IEC)	P	20	W
Sensitivity (1W/1m)	E	86	dB
Voice coil Diameter	$\varnothing$	20	mm
Minimum Impedance	Zmin	7.4	$\Omega$
DC Resistance	Re	5.9	$\Omega$
Voice Coil Inductance	Lbm	0.21	$\mu$ H
Voice Coil Length	h	7	mm
Former	-	Alum.	-
Number of Layers	n	2	-
Magnet Weight	m	0.113	kg
Flux Density	B	0.98	T
Force Factor	BL	3.07	NA <sup>-1</sup>
Height of Magnet Gap	He	4	mm
Linear Excursion peak	Xmax	1.5	mm
Suspension Compliance	Cms	$1.57 \cdot 10^{-3}$	mN <sup>-1</sup>
Mechanical Q Factor	Qms	2.48	-
Electrical Q Factor	Qes	0.79	-
Total Q Factor	Qts	0.60	-
Moving Mass	Mms	$2.5 \cdot 10^{-3}$	kg
Effective Piston Area	S	$0.29 \cdot 10^{-2}$	m <sup>2</sup>
Equivalent Air Volume	Vas	1.9	ltrs

## AT080M0

### 3" Shielded paper cone full range

A fully shielded compact full range driver for use in mini enclosures near audio/video equipment. Offers usable bass down to 85hz in a small sealed enclosure.

- Shielded magnet
- 83dB efficiency
- Paper cone, foam surround
- High temperature voice coil
- Low bass response
- Compact size



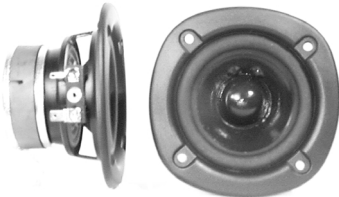
Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	82	Hz
Power Handling (IEC)	P	20	W
Sensitivity (1W/1m)	E	83	dB
Voice coil Diameter	$\varnothing$	20	mm
Minimum Impedance	Zmin	7.4	$\Omega$
DC Resistance	Re	6.1	$\Omega$
Voice Coil Inductance	Lbm	0.26	$\mu$ H
Voice Coil Length	h	7	mm
Former	-	Alum.	-
Number of Layers	n	2	-
Magnet Weight	m	0.106	kg
Flux Density	B	0.8	T
Force Factor	BL	2.85	NA <sup>-1</sup>
Height of Magnet Gap	He	4	mm
Linear Excursion peak	Xmax	1.5	mm
Suspension Compliance	Cms	$1.46 \cdot 10^{-3}$	mN <sup>-1</sup>
Mechanical Q Factor	Qms	2.28	-
Electrical Q Factor	Qes	0.99	-
Total Q Factor	Qts	0.69	-
Moving Mass	Mms	$2.55 \cdot 10^{-3}$	kg
Effective Piston Area	S	$0.29 \cdot 10^{-2}$	m <sup>2</sup>
Equivalent Air Volume	Vas	1.8	ltrs

## HT080G0

### 3" Treated Paper cone full range

Full range compact 3" driver with a usable frequency range of 100Hz to 20khz. The compact size and good bass response of this driver should make it useful for many applications.

- 86dB efficiency
- Paper cone, rubber surround
- F3 of 105Hz in small sealed box
- High temperature voice coil
- decorative flange
- 2" mounting depth



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	80	Hz
Power Handling (IEC)	P	20	W
Sensitivity (1W/1m)	E	86	dB
Voice coil Diameter	$\varnothing$	20	mm
Minimum Impedance	Zmin	5	$\Omega$
DC Resistance	Re	5	$\Omega$
Voice Coil Inductance	Lbm	0.21	$\mu$ H
Voice Coil Length	h	7.2	mm
Former	-	Alum.	-
Number of Layers	n	2	-
Magnet Weight	m	0.113	kg
Flux Density	B	0.98	T
Force Factor	BL	3	NA <sup>-1</sup>
Height of Magnet Gap	He	4	mm
Linear Excursion peak	Xmax	1.5	mm
Suspension Compliance	Cms	$1.6 \cdot 10^{-3}$	mN <sup>-1</sup>
Mechanical Q Factor	Qms	1.96	-
Electrical Q Factor	Qes	0.73	-
Total Q Factor	Qts	0.53	-
Moving Mass	Mms	$2.7 \cdot 10^{-3}$	kg
Effective Piston Area	S	$0.29 \cdot 10^{-2}$	m <sup>2</sup>
Equivalent Air Volume	Vas	1.9	ltrs

## HT100M0

### 4" Paper cone bass midrange

Low fs 4" paper cone woofer with 3mm x-max. Usable to 80Hz in a small vented enclosure or 125Hz sealed.

- 88dB efficiency
- Paper cone, foam surround
- F3 of 80hz in small vented box
- High temperature voice coil
- 4.7" flange diameter
- 2" mounting depth
- Long 3mm x-max



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	60	Hz
Power Handling (IEC)	P	30	W
Sensitivity (1W/1m)	E	88	dB
Voice coil Diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	7	$\Omega$
DC Resistance	Re	5.6	$\Omega$
Voice Coil Inductance	Lbm	0.27	$\mu$ H
Voice Coil Length	h	10	mm
Former	-	Alum.	-
Number of Layers	n	2	-
Magnet Weight	m	0.24	kg
Flux Density	B	1	T
Force Factor	BL	4.6	NA <sup>-1</sup>
Height of Magnet Gap	He	4	mm
Linear Excursion peak	Xmax	1.5	mm
Suspension Compliance	Cms	$1.65 \cdot 10^{-3}$	mN <sup>-1</sup>
Mechanical Q Factor	Qms	1.67	-
Electrical Q Factor	Qes	0.43	-
Total Q Factor	Qts	0.34	-
Moving Mass	Mms	$4.5 \cdot 10^{-3}$	kg
Effective Piston Area	S	$0.51 \cdot 10^{-2}$	m <sup>2</sup>
Equivalent Air Volume	Vas	6.1	ltrs

## AT100M0

### 4" Shielded Paper cone bass/mid

This small 4" shielded woofer is perfect for your A/V needs or for use in a speaker near your computer monitor. F3 of 90Hz in a small sealed box.

- Shielded Magnet
- 88dB efficiency
- Paper cone, foam surround
- F3 of 90hz in small sealed box
- High temperature voice coil
- 4" square flange
- 2.3" mounting depth



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	64	Hz
Power Handling (IEC)	P	30	W
Sensitivity (1W/1m)	E	88	dB
Voice coil Diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	7	$\Omega$
DC Resistance	Re	5.7	$\Omega$
Voice Coil Inductance	Lbm	0.3	$\mu$ H
Voice Coil Length	h	10	mm
Former	-	Alum.	-
Number of Layers	n	2	-
Magnet Weight	m	0.217	kg
Flux Density	B	0.9	T
Force Factor	BL	4.32	NA <sup>-1</sup>
Height of Magnet Gap	He	4	mm
Linear Excursion peak	Xmax	3	mm
Suspension Compliance	Cms	1.26*10 <sup>-3</sup>	mN <sup>-1</sup>
Mechanical Q Factor	Qms	2.33	-
Electrical Q Factor	Qes	0.61	-
Total Q Factor	Qts	0.48	-
Moving Mass	Mms	5.1*10 <sup>-3</sup>	kg
Effective Piston Area	S	0.51*10 <sup>-2</sup>	m <sup>2</sup>
Equivalent Air Volume	Vas	4.41	ltrs

## HT130M0

### 5 1/4" Paper cone woofer

This woofer has a smooth response to 3kHz. In a small vented enclosure it will get down to about 75Hz or about 120Hz in a small sealed enclosure.

- 91dB efficiency
- Paper cone, foam surround
- High temperature voice coil
- Long excursion
- High efficiency
- Low Fs
- Smooth response



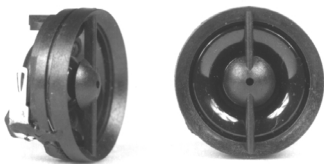
Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	$\Omega$
Resonance Frequency	Fs	59	Hz
Power Handling (IEC)	P	40	W
Sensitivity (1W/1m)	E	91	dB
Voice coil Diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	7.7	$\Omega$
DC Resistance	Re	6.4	$\Omega$
Voice Coil Inductance	Lbm	0.32	$\mu$ H
Voice Coil Length	h	11	mm
Former	-	Alum.	-
Number of Layers	n	2	-
Magnet Weight	m	0.35	kg
Flux Density	B	1.1	T
Force Factor	BL	6.65	NA <sup>-1</sup>
Height of Magnet Gap	He	5	mm
Linear Excursion peak	Xmax	3	mm
Suspension Compliance	Cms	0.98*10 <sup>-3</sup>	mN <sup>-1</sup>
Mechanical Q Factor	Qms	1.95	-
Electrical Q Factor	Qes	0.40	-
Total Q Factor	Qts	0.33	-
Moving Mass	Mms	7.41*10 <sup>-3</sup>	kg
Effective Piston Area	S	0.81*10 <sup>-2</sup>	m <sup>2</sup>
Equivalent Air Volume	Vas	9.05	ltrs

## TM010A1

### 10mm Polymer dome neodymium

This compact 4 ohm version of the TM010A7 shares most of the features except for the gold dome. The small size of this tweeter should allow for easy installation.

- Formerless voice coil
- Balanced Drive: dome and suspension are of one piece.
- Ferrofluid cooled
- Compact size - 29.5 mm  $\varnothing$
- Surface and Flush mount kits are available.



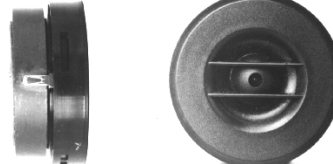
Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	4	$\Omega$
Resonance Frequency	Fs	3000	Hz
Power Handling (IEC)	P	25	W
Sensitivity (1W/1m)	E	85	dB
Voice coil Diameter	$\varnothing$	10	mm
Minimum Impedance	Zmin	4.3	$\Omega$
DC Resistance	Re	3.4	$\Omega$
Voice Coil Inductance	Lbm	.25	$\mu$ H
Voice Coil Length	h	2	mm
Former	-	-	-
Number of Layers	n	2	-
Magnet Weight	m	-	kg
Flux Density	B	1	T
Force Factor	BL	1	NA <sup>-1</sup>
Height of Magnet Gap	He	2	mm
Linear Excursion peak	Xmax	.25	mm
Suspension Compliance	Cms	-	mN <sup>-1</sup>
Mechanical Q Factor	Qms	-	-
Electrical Q Factor	Qes	-	-
Total Q Factor	Qts	-	-
Moving Mass	Mms	.13*10 <sup>-3</sup>	kg
Effective Piston Area	S	3.1*10 <sup>-2</sup>	m <sup>2</sup>
Equivalent Air Volume	Vas	-	m <sup>3</sup>

## DW50M

### 4 $\Omega$ 14mm Polymer dome tweeter

Compact dome tweeter designed for automotive use. High output and small size makes this tweeter very versatile in any automotive system.

- 95 db efficiency
- Ferrofluid cooled voice coil
- Direct drive; voice coil wound onto suspension
- 50 mm diameter flange
- Good super tweeter



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	4	$\Omega$
Resonance Frequency	Fs	2050	Hz
Power Handling (IEC)	P	45	W
Sensitivity (1W/1m)	E	94	dB
Voice coil Diameter	$\varnothing$	14	mm
Minimum Impedance	Zmin	5	$\Omega$
DC Resistance	Re	2.8	$\Omega$
Voice Coil Inductance	Lbm	.19	$\mu$ H
Voice Coil Length	h	2	mm
Former	-	Polymer	-
Number of Layers	n	2	-
Magnet Weight	m	53*10 <sup>-3</sup>	kg
Flux Density	B	1.51	T
Force Factor	BL	2	NA <sup>-1</sup>
Height of Magnet Gap	He	1.5	mm
Linear Excursion peak	Xmax	0.25	mm
Suspension Compliance	Cms	-	mN <sup>-1</sup>
Mechanical Q Factor	Qms	-	-
Electrical Q Factor	Qes	-	-
Total Q Factor	Qts	-	-
Moving Mass	Mms	0.19*10 <sup>-3</sup>	kg
Effective Piston Area	S	6.6*10 <sup>-4</sup>	m <sup>2</sup>
Equivalent Air Volume	Vas	-	m <sup>3</sup>
Mass of Speaker	M	112*10 <sup>-3</sup>	kg

## VE101F0

### 4" Fiberglass cone bass/mid.

Automotive 4" round fiberglass cone woofer with two mounting tabs. Extended frequency response to 12kHz. Good upgrade for dash mounted speakers. F3 of 125Hz free air.

- 89 dB efficiency
- Woven fiberglass cone
- Yellow cone
- Rubber surround
- 4" round frame
- 4Ω impedance



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	4	Ω
Resonance Frequency	Fs	120	Hz
Power Handling (IEC)	P	30	W
Sensitivity (1W/1m)	E	89	dB
Voice coil Diameter	Ø	25	mm
Minimum Impedance	Zmin	4	Ω
DC Resistance	Re	3.4	Ω
Voice Coil Inductance	Lbm	0.19	mH
Voice Coil Length	h	7	mm
Former	-	Alum.	-
Number of Layers	n	2	-
Magnet Weight	m	0.24	kg
Flux Density	B	1	T
Force Factor	BL	4.2	NA <sup>-1</sup>
Height of Magnet Gap	He	4	mm
Linear Excursion peak	Xmax	1.5	mm
Suspension Compliance	Cms	0.32*10 <sup>-3</sup>	mN <sup>-1</sup>
Mechanical Q Factor	Qms	4.74	-
Electrical Q Factor	Qes	0.80	-
Total Q Factor	Qts	0.69	-
Moving Mass	Mms	5.5*10 <sup>-3</sup>	kg
Effective Piston Area	S	0.5*10 <sup>-2</sup>	m <sup>2</sup>
Equivalent Air Volume	Vas	1.1	ltrs
Mass of Speaker	M	0.56	kg

## VE130F4

### 5 1/4" Fiberglass cone bass/mid.

Automotive 5 1/4" fiberglass cone woofer. Extended response to 5kHz. F3 of 75Hz in small vented enclosure or 125Hz sealed. Good off axis response to 3kHz.

- 90 dB efficiency
- Woven fiberglass cone
- Yellow cone
- Rubber surround
- 5" round fram
- 4Ω impedance



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	4	Ω
Resonance Frequency	Fs	74	Hz
Power Handling (IEC)	P	50	W
Sensitivity (1W/1m)	E	90	dB
Voice coil Diameter	Ø	25	mm
Minimum Impedance	Zmin	4	Ω
DC Resistance	Re	3.35	Ω
Voice Coil Inductance	Lbm	0.23	mH
Voice Coil Length	h	7	mm
Former	-	Alum.	-
Number of Layers	n	2	-
Magnet Weight	m	0.345	kg
Flux Density	B	1.1	T
Force Factor	BL	4.13	NA <sup>-1</sup>
Height of Magnet Gap	He	5	mm
Linear Excursion peak	Xmax	1	mm
Suspension Compliance	Cms	0.85*10 <sup>-3</sup>	mN <sup>-1</sup>
Mechanical Q Factor	Qms	3.5	-
Electrical Q Factor	Qes	0.50	-
Total Q Factor	Qts	0.44	-
Moving Mass	Mms	5.5*10 <sup>-3</sup>	kg
Effective Piston Area	S	0.82*10 <sup>-2</sup>	m <sup>2</sup>
Equivalent Air Volume	Vas	8.1	ltrs
Mass of Speaker	M	0.87	kg

## VE170F8

### 6 1/2" Fiberglass cone woofer

Automotive 6 1/2" fiberglass cone woofer with good response to 9kHz and good off axis response to 3kHz. Good bass response to 55Hz in vented box or 85Hz sealed.

- 90 dB efficiency
- Woven fiberglass cone
- Yellow cone
- Rubber surround
- 6.5" round frame
- 4Ω impedance



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	4	Ω
Resonance Frequency	Fs	56	Hz
Power Handling (IEC)	P	50	W
Sensitivity (1W/1m)	E	90	dB
Voice coil Diameter	Ø	25	mm
Minimum Impedance	Zmin	4.8	Ω
DC Resistance	Re	3.7	Ω
Voice Coil Inductance	Lbm	0.01	μH
Voice Coil Length	h	7	mm
Former	-	Alum.	-
Number of Layers	n	2	-
Magnet Weight	m	0.345	kg
Flux Density	B	1.1	T
Force Factor	BL	5.62	NA <sup>-1</sup>
Height of Magnet Gap	He	5	mm
Linear Excursion peak	Xmax	1	mm
Suspension Compliance	Cms	0.63*10 <sup>-3</sup>	mN <sup>-1</sup>
Mechanical Q Factor	Qms	3.14	-
Electrical Q Factor	Qes	0.53	-
Total Q Factor	Qts	0.45	-
Moving Mass	Mms	13.1*10 <sup>-3</sup>	kg
Effective Piston Area	S	1.42*10 <sup>-2</sup>	m <sup>2</sup>
Equivalent Air Volume	Vas	18.1	ltrs

## HT170Z0

### 6 1/2" Aerogel cone woofer

Automotive HD-A Aerogel cone woofer. Very good response both on and off axis to 3kHz. Good choice for door mounting. We have had very favorable response from people using this woofer.

- High Definition Aerogel cone
- 87dB efficiency
- High loss rubber surround
- High temperature voice coil
- Low bass response
- Vented pole piece



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	4	Ω
Resonance Frequency	Fs	50	Hz
Power Handling (IEC)	P	60	W
Sensitivity (1W/1m)	E	87	dB
Voice coil Diameter	Ø	30	mm
Minimum Impedance	Zmin	4	Ω
DC Resistance	Re	3.8	Ω
Voice Coil Inductance	Lbm	0.54	μH
Voice Coil Length	h	12	mm
Former	-	Kapton	-
Number of Layers	n	4	-
Magnet Weight	m	0.31	kg
Flux Density	B	1	T
Force Factor	BL	5.2	NA <sup>-1</sup>
Height of Magnet Gap	He	5	mm
Linear Excursion peak	Xmax	3.5	mm
Suspension Compliance	Cms	0.72*10 <sup>-3</sup>	mN <sup>-1</sup>
Mechanical Q Factor	Qms	4.07	-
Electrical Q Factor	Qes	0.64	-
Total Q Factor	Qts	0.56	-
Moving Mass	Mms	14.9*10 <sup>-3</sup>	kg
Effective Piston Area	S	1.39*10 <sup>-2</sup>	m <sup>2</sup>
Equivalent Air Volume	Vas	19.1	ltrs

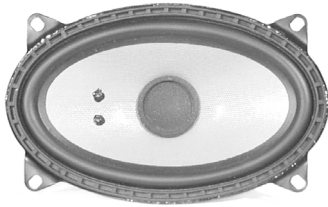


## VE4X6F0

### 4" x 6" Elliptical Fiberglass cone bass/midrange.

Automotive 4" x 6" elliptical fiberglass cone bass/mid with a usable frequency range of 90hz to 9khz. This driver should be a good choice for a center channel or as a replacement driver.

- 88 dB efficiency
- Woven fiberglass cone
- Yellow cone
- Rubber surround
- Good response to 6kHz
- 4Ω impedance



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	4	Ω
Resonance Frequency	Fs	90	Hz
Power Handling (IEC)	P	30	W
Sensitivity (1W/1m)	E	88	dB
Voice coil Diameter	Ø	25	mm
Minimum Impedance	Zmin	4	Ω
DC Resistance	Re	3.5	Ω
Voice Coil Inductance	Lbm	0.2	mH
Voice Coil Length	h	7	mm
Former	-	Alum.	-
Number of Layers	n	2	-
Magnet Weight	m	0.24	kg
Flux Density	B	1	T
Force Factor	BL	4.5	NA <sup>-1</sup>
Height of Magnet Gap	He	4	mm
Linear Excursion peak	Xmax	1.5	mm
Suspension Compliance	Cms	0.32*10 <sup>-3</sup>	mN <sup>-1</sup>
Mechanical Q Factor	Qms	3	-
Electrical Q Factor	Qes	0.96	-
Total Q Factor	Qts	0.73	-
Moving Mass	Mms	9.4*10 <sup>-3</sup>	kg
Effective Piston Area	S	0.75*10 <sup>-2</sup>	m <sup>2</sup>
Equivalent Air Volume	Vas	2.5	ltrs
Mass of Speaker	M	0.61	kg

## VE6X9F0

### 6" x 9" Elliptical Fiberglass cone bass / midrange

Automotive 6" x 9" elliptical fiberglass cone woofer with a usable frequency range of 70hz to 4kHz in a sealed box or it will get down to 45Hz in a vented box. Very good off axis response.

- 92 dB efficiency
- Woven fiberglass cone
- Yellow cone
- Rubber surround
- Elliptical stamped steel frame



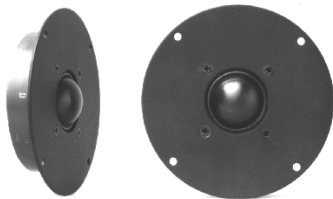
Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	4	Ω
Resonance Frequency	Fs	45	Hz
Power Handling (IEC)	P	60	W
Sensitivity (1W/1m)	E	92	dB
Voice coil Diameter	Ø	40	mm
Minimum Impedance	Zmin	3.6	Ω
DC Resistance	Re	3.1	Ω
Voice Coil Inductance	Lbm	0.26	mH
Voice Coil Length	h	11	mm
Former	-	Alum.	-
Number of Layers	n	2	-
Magnet Weight	m	0.55	kg
Flux Density	B	1	T
Force Factor	BL	6.2	NA <sup>-1</sup>
Height of Magnet Gap	He	6	mm
Linear Excursion peak	Xmax	2.5	mm
Suspension Compliance	Cms	0.57*10 <sup>-3</sup>	mN <sup>-1</sup>
Mechanical Q Factor	Qms	2.61	-
Electrical Q Factor	Qes	0.51	-
Total Q Factor	Qts	0.43	-
Moving Mass	Mms	21.7*10 <sup>-3</sup>	kg
Effective Piston Area	S	2.06*10 <sup>-2</sup>	m <sup>2</sup>
Equivalent Air Volume	Vas	33.6	ltrs
Mass of Speaker	M	1.7	kg

## TW034X0

### 34 mm Textile dome tweeter

1 1/4" textile dome tweeter suitable for a low crossover point or as a high output, high power tweeter at a higher crossover point.

- Impregnated textile dome
- Aluminum faceplate
- 93 db efficiency
- low resonant frequency
- 132mm diameter flange
- Replaceable voice coil



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	8	Ω
Resonance Frequency	Fs	800	Hz
Power Handling (IEC)	P	70	W
Sensitivity (1W/1m)	E	93	dB
Voice coil Diameter	Ø	34	mm
Minimum Impedance	Zmin	6.5	Ω
DC Resistance	Re	5.3	Ω
Voice Coil Inductance	Lbm	6	μH
Voice Coil Length	h	2.8	mm
Former	-	alum.	-
Number of Layers	n	1	-
Magnet Weight	m	550*10 <sup>-3</sup>	kg
Flux Density	B	1.5	T
Force Factor	BL	3.5	NA <sup>-1</sup>
Height of Magnet Gap	He	3	mm
Linear Excursion peak	Xmax	2.15	mm
Suspension Compliance	Cms	-	mN <sup>-1</sup>
Mechanical Q Factor	Qms	-	-
Electrical Q Factor	Qes	-	-
Total Q Factor	Qts	-	-
Moving Mass	Mms	0.50*10 <sup>-3</sup>	kg
Effective Piston Area	S	10.8*10 <sup>-4</sup>	m <sup>2</sup>
Equivalent Air Volume	Vas	-	m <sup>3</sup>

## HT170G8

### 6 1/2" Dual Coil Treated Paper cone woofer, 8 ohm/8 ohm

This dual voice coil woofer has good bass response as well as good linear response to 3.5kHz. Used as a subwoofer in the HTG1780 kit on the internet.

- Critically damped paper cone
- 90dB efficiency
- Rubber surround
- High temperature voice coil
- Dual 8 ohm coils
- Use as 4Ω, 16Ω or 2x 8Ω



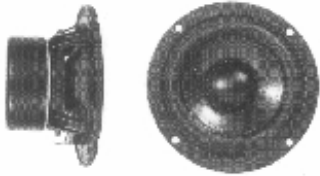
Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	2 x 8	Ω
Resonance Frequency	Fs	45	Hz
Power Handling (IEC)	P	50	W
Sensitivity (1W/1m)	E	90	dB
Voice coil Diameter	Ø	30	mm
Minimum Impedance	Zmin	3.6	Ω
DC Resistance	Re	3.5	Ω
Voice Coil Inductance	Lbm	0.49	μH
Voice Coil Length	h	12	mm
Former	-	Alum.	-
Number of Layers	n	2 x 2	-
Magnet Weight	m	0.31	kg
Flux Density	B	1	T
Force Factor	BL	5.5	NA <sup>-1</sup>
Height of Magnet Gap	He	5	mm
Linear Excursion peak	Xmax	3.5	mm
Suspension Compliance	Cms	0.76*10 <sup>-3</sup>	mN <sup>-1</sup>
Mechanical Q Factor	Qms	4.93	-
Electrical Q Factor	Qes	0.55	-
Total Q Factor	Qts	0.49	-
Moving Mass	Mms	17.4*10 <sup>-3</sup>	kg
Effective Piston Area	S	1.36*10 <sup>-2</sup>	m <sup>2</sup>
Equivalent Air Volume	Vas	19.9	ltrs

## AP100G0

### Shielded 4" coated paper cone

The AP100G0 is designed for uses where a magnetically shielded speaker is needed. This driver is a good choice for any A/V application. Use it in a center channel or perhaps a computer speaker.

- 84.5 dB efficiency
- Coated paper cone
- Rubber surround
- Good response to 4kHz
- Polymer chassis



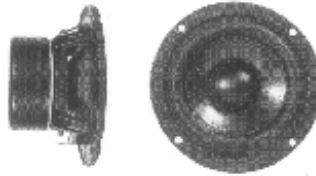
Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	6	$\Omega$
Resonance Frequency	Fs	75.7	Hz
Power Handling (IEC)	P	30	W
Sensitivity (1W/1m)	E	84.5	dB
Voice coil Diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	6.2	$\Omega$
DC Resistance	Re	5.7	$\Omega$
Voice Coil Inductance	Lbm	0.49	mH
Voice Coil Length	h	9.4	mm
Former	-	Alum.	-
Number of Layers	n	2	-
Magnet Weight	m	0.205	kg
Flux Density	B	1	T
Force Factor	BL	3.92	NA <sup>-1</sup>
Height of Magnet Gap	He	4	mm
Linear Excursion peak	Xmax	2.7	mm
Suspension Compliance	Cms	949	$\mu$ m/N
Mechanical Q Factor	Qms	2.53	-
Electrical Q Factor	Qes	0.78	-
Total Q Factor	Qts	0.60	-
Moving Mass	Mms	4.66	g
Effective Piston Area	S	50.27	cm <sup>2</sup>
Equivalent Air Volume	Vas	3.37	ltrs

## AP100Z0

### Shielded 4" HDA Aerogel cone

The AP100Z0 is a shielded magnet speaker for use in audio video applications. The small size of this driver makes it an ideal choice for a center channel speaker or computer speaker.

- 84.7 dB efficiency
- HDA Aerogel cone
- Polymer chassis
- Rubber surround
- Decorative flange
- Good vented or sealed



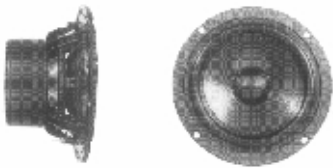
Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	6	$\Omega$
Resonance Frequency	Fs	64	Hz
Power Handling (IEC)	P	30	W
Sensitivity (1W/1m)	E	84.7	dB
Voice coil Diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	6.1	$\Omega$
DC Resistance	Re	5.7	$\Omega$
Voice Coil Inductance	Lbm	0.45	mH
Voice Coil Length	h	9.4	mm
Former	-	Alum.	-
Number of Layers	n	2	-
Magnet Weight	m	0.205	kg
Flux Density	B	1	T
Force Factor	BL	3.99	NA <sup>-1</sup>
Height of Magnet Gap	He	4	mm
Linear Excursion peak	Xmax	2.7	mm
Suspension Compliance	Cms	1329	$\mu$ m/N
Mechanical Q Factor	Qms	2.16	-
Electrical Q Factor	Qes	0.63	-
Total Q Factor	Qts	0.49	-
Moving Mass	Mms	4.65	g
Effective Piston Area	S	50.27	cm <sup>2</sup>
Equivalent Air Volume	Vas	4.72	ltrs

## AP130Z0

### Shielded 5 1/4" HDA Aerogel cone

The AP130Z0 is a shielded magnet speaker for use in audio video applications. F3 of 100Hz in a sealed enclosure or 60Hz vented. Frequency response to 3kHz.

- 87.4 dB efficiency
- HDA Aerogel cone
- Polymer chassis
- Rubber surround
- Decorative flange
- Good bass in small vented enclosure



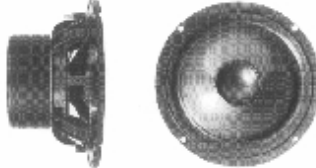
Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	6	$\Omega$
Resonance Frequency	Fs	57.6	Hz
Power Handling (IEC)	P	40	W
Sensitivity (1W/1m)	E	87.4	dB
Voice coil Diameter	$\varnothing$	25	mm
Minimum Impedance	Zmin	5.7	$\Omega$
DC Resistance	Re	5.2	$\Omega$
Voice Coil Inductance	Lbm	0.4	mH
Voice Coil Length	h	10	mm
Former	-	alum.	-
Number of Layers	n	2	-
Magnet Weight	m	0.35	kg
Flux Density	B	1	T
Force Factor	BL	4.72	NA <sup>-1</sup>
Height of Magnet Gap	He	5	mm
Linear Excursion peak	Xmax	2.5	mm
Suspension Compliance	Cms	1113	$\mu$ m/N
Mechanical Q Factor	Qms	1.48	-
Electrical Q Factor	Qes	0.57	-
Total Q Factor	Qts	0.41	-
Moving Mass	Mms	6.86	g
Effective Piston Area	S	83.32	cm <sup>2</sup>
Equivalent Air Volume	Vas	10.85	ltrs

## AP170Z0

### Shielded 6 1/2" HDA Aerogel cone

The AP170Z0 woofer is designed for use in any audio/video application. The frequency range is from 55Hz (vented) to 3kHz. This woofer can also be used sealed for an F3 of 90Hz.

- 87.4 dB efficiency
- HDA Aerogel cone
- Polymer chassis
- Rubber surround
- Decorative flange



Technical Data	Symbol	Value	Unit
Nominal Impedance	Z	6	$\Omega$
Resonance Frequency	Fs	48.5	Hz
Power Handling (IEC)	P	60	W
Sensitivity (1W/1m)	E	89.3	dB
Voice coil Diameter	$\varnothing$	30	mm
Minimum Impedance	Zmin	6	$\Omega$
DC Resistance	Re	5.3	$\Omega$
Voice Coil Inductance	Lbm	0.74	$\mu$ H
Voice Coil Length	h	12	mm
Former	-	Alum.	-
Number of Layers	n	2	-
Magnet Weight	m	0.555	kg
Flux Density	B	1	T
Force Factor	BL	5.76	NA <sup>-1</sup>
Height of Magnet Gap	He	6	mm
Linear Excursion peak	Xmax	3	mm
Suspension Compliance	Cms	996	$\mu$ m/N
Mechanical Q Factor	Qms	1.61	-
Electrical Q Factor	Qes	0.5	-
Total Q Factor	Qts	0.38	-
Moving Mass	Mms	10.82	g
Effective Piston Area	S	132.73	cm <sup>2</sup>
Equivalent Air Volume	Vas	24.65	ltrs